Saskatchewan

Environmental Advisory Council

1979-80 Annual Report

FOR THE YEAR ENDING JUNE 30, 1980

1979-80 Members

CHAIRMAN

Ole Nielsen
Western College of Veterinary Medicine
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 0W0
Phone: 343-2634

VICE-CHAIRMAN

Clarence Hookenson
Box 117
Kisbey
S0C 1L0

Jack Boan
6 Langley Street
Regina
S4S 3V6

John Comer
Box 876
Carrot River
S0E 0L0

Ted Hammer
31 Simpson Crescent
Saskatoon
S7H 3C5

Doug Keil
116 Sunset Drive
Regina
S4S 2R9

Gerry Macdonald
1900 York Street
Regina
S4T 4R4

Roy Myke
Box 41
La Ronge
S0J 1L0

Evelyn Potter
Box 891
Biggar
S0K 0M0

Garry Shury
221 Durham Drive
Regina
S4S 4Z4

Russ Simpson
Box 130
Tompkins
S0N 2S0

Jim Tooke
Box 277
Dalmeny
S0K 1E0

EXECUTIVE ASSISTANT

Roy Schneider
1055 Park Street
Regina, Saskatchewan
S4N 5H4
Phone: 522-1284

DEPARTMENT LIAISON

Ken Fawcett
Department of Environment
5th Floor
1855 Victoria Avenue
Regina, Saskatchewan
S4P 3V5
Phone: 565-6140

Front Cover — Reindeer River, Northern Saskatchewan

101-07509/

Saskatchewan

Environmental Advisory Council

LEGISLATIVE LIBRARY
WITHDRAWN

1979-80 Annual Report

LEGISLATIVE LIBRARY OF ONTARIO
TORONTO
JUN 03 1981
RECEIVED

CONTENTS

Environmental Advisory Council 3
Government Programs Review 4
Acid Rain 4
Warman Refinery 8
Key Lake Board of Inquiry 13
Churchill River Heritage Waterway 17
Department of Environment 19
General 22
Citizen Concerns 25
Ecological Reserves 25
Response to 1978-79 Annual Report 28
General 30
Liaison Activities 32
Fifth Joint Meeting of Federal-Provincial EACs 32
General 34

Province of Saskatchewan
Environmental Advisory Council
1055 Park Street
Regina, Saskatchewan

The Honourable G. R. Bowerman,
Minister
Department of Environment

Dear Sir:

I have the honor to submit to you the seventh Annual Report of the Environmental Advisory Council.

A highlight of the past year was Council's meeting with the Inter-Agency Co-ordinating Committee which allowed Council the opportunity of conveying to various government departments its long term environmental concerns. These concerns were identified during the course of the Environment 80 Project which occupied a good deal of Council's attention in 1978-79.

Council represents a cross section of the Saskatchewan population, not a body of experts. Council also has relatively limited resources. Council therefore has a policy of attempting to focus on selected major environmental issues. During the past year priority was given to an investigation of the potential threat posed to Saskatchewan by acid rain. We hope that the report on this matter has made a significant contribution to defining and promoting awareness of this problem.

Council appreciates the Department's efforts to keep it abreast of the major environmental issues facing Saskatchewan. The apparent sincere desire on the part of the Department to seek and utilize Council's advice is appreciated.

Yours sincerely,

DR. N. O. NIELSEN,
Chairman
Environmental Advisory Council

Environmental Advisory Council

The Department of Environment Act provides for the formation of an Environmental Advisory Council. According to the Act, Council is to advise the Minister of the Department of Environment on environmental matters of concern to the people of Saskatchewan.

The formation and composition of the Environmental Advisory Council was announced on January 17, 1973.

The three primary tasks of the Council are: to review government policies and programs relating to the environment and report findings and recommendations to the Minister; to bring to the attention of the Minister problem areas which require government attention; and, to examine and provide advice on public involvement in any program of the government relating to the environment.

Five general meetings were held during the year at Regina and Saskatoon along with a larger number of sub-committee sessions addressed to specific issues. Council membership remained unchanged during the year. In January 1980 Ken Fawcett became the Council's new Department Liaison.

Two major public hearings (Key Lake Board of Inquiry, Warman Environmental Assessment Panel) were underway as the reporting year drew to a close. Both were addressing project proposals for Saskatchewan's uranium industry, and both were encountering public participation problems which all but overshadowed the environmental issues. Another notable event was the passage of four pieces of environmental legislation during the reporting year, an encouraging indicator that some progress is being made. Liaison activities were highlighted by the June 1980 Fifth Joint Meeting of Federal and Provincial Environmental Advisory Councils in New Brunswick. Meetings and correspondence with individuals and organizations provided Council with a further variety of issues.

Government Programs Review

Acid Rain

Air pollutants, principally sulphur and nitrogen oxides, mix with water vapor in the atmosphere and then fall to earth as acidic precipitation — acid rain. The effects can be devastating. The most significant of these is the deterioration of aquatic ecosystems. By increasing soil acidity acid rain may also cause reductions in crop and forest production. In addition, certain plant forms may be eliminated and buildings and machinery may be damaged by corrosion.

Acid rain is not a new environmental problem. Scientists in Europe have been monitoring and studying the problem since the 1950's. In North America serious examinations did not commence until the 1970's but have since intensified, and with good reason.

Since the mid-1950's hundreds of lakes in the eastern United States, Scandinavia, and parts of western Europe have become so acidic they can no longer support fish and other aquatic life. Closer to home, it has been estimated that between 2,000-4,000 Ontario lakes are now too acidic to sustain desirable fish species and a further 48,000 lakes are considered susceptible to acidification. Federal officials have called acid rain the most serious environmental problem Canada has ever faced.

Although more and more attention has been given to the problem in Canada, the majority of research has been done in eastern Canada where the impacts appear to be more dramatic. It was Council's consensus that despite the growing number of reports and studies on acid rain, few of these focused specifically or sufficiently on Saskatchewan. Given the present direction of federal and provincial energy planning — more specifically, the priority assigned to the development of heavy oil and tar sands deposits — it

appeared the potential was there for acid rain to become a significant problem for western Canada also. For these reasons, in November 1979 Council commissioned a study on the potential magnitude of the acid rain problem for Saskatchewan.

The report was prepared for Council by Dr. U. T. Hammer, a biologist at the University of Saskatchewan and a member of Council. The report was completed in June 1980 and released in September.

The report shows that acid precipitation is presently occurring in Saskatchewan with acid rain as low as pH 4.6. The most significant potential effect is a progressive deterioration of Precambrian Shield lakes, particularly the long term potential for loss of fish life.

Increasing emissions of pollutants from heavy oil and tar sands projects will compound the problem over the long term. The report states: "The technology of the removal of acidic gases must be improved drastically to prevent the loss of fish populations from northern lakes. If this is not done, recreation through fishing will be dramatically reduced in the next few decades. Commercial and domestic fisheries, the mainstay of many natives in the north, will likewise be greatly affected." Other less acute impacts on the Precambrian Shield include the potential for soil acidification and damage to vegetation over the long term, including the most important and sensitive plants in the north — the lichens. Acid rain may also result in an accentuation of selenium deficiencies which could have harmful effects on wildlife (white muscle disease).

South of the Precambrian Shield the potential impacts appear to be less severe. Southern Saskatchewan lakes are too well buffered and acidification is not anticipated. Although gradual long term acidification of soils will probably occur, the impact of atmospheric depositions will be minor

compared to that caused by nitrate fertilizer applications. However, the report notes that "acid soils in western central and northwestern Saskatchewan will be adversely affected and reduction of yields and kinds of crops grown will result. Another serious implication of sulphur fallout is with respect to selenium deficient areas. Selenium deficiency in forage and resulting effects on livestock will be accentuated in the northern half of the agricultural zone." The nature and extent of the problem need to be further examined and more precisely defined.

In summary, the report shows that acid rain is presently occurring in Saskatchewan and represents a serious potential problem here as well as in eastern Canada. The major impacts are in the Precambrian Shield where, in the long run, lake acidification and drastic reductions in fish populations can be anticipated if no remedial measures are taken.

In its recommendations to the Minister Council concentrated primarily on the need for additional studies to more precisely define the problem areas and provide an improved basis for specific mitigative measures. There has been a good response and additional studies are in progress.

Council also stressed that acid rain represents a serious **potential** problem for Saskatchewan; i.e. one that is theoretically in large part avoidable if government's response is prompt and concerted. A recurring problem in other jurisdictions has been the projected multi-million dollar costs of curbing and controlling acid rain, costs which arise for pollution abatement measures as well as projections of lost jobs and revenue if planned projects are not allowed to proceed. The shortcoming of such economic analyses of acid rain is that they concentrate exclusively on the cost of turning it off. Left unexamined or at best poorly defined is the very real and substantial cost of economic "damage" due to acid rain; i.e. the price which will have to be paid in the future if nothing is done about the problem.

This cannot be neglected if responsible choices are to be made. Although the data are sketchy, there are already indications that the cost of this economic damage could conceivably undermine the financial stability of entire regional economies. For example, it has been estimated that 600 fishing lodges in northeastern Ontario could be forced out of business within 20 years if present levels of acid rain continue. About 6,000 jobs and $28 million of annual income in the area would be lost in the process. Although their report was heavily criticized, a 1977 study by the National Research Council of Canada estimated the direct annual loss to forests due to acid rain at that time to lie between $1.2 — $2.8 million. According to a spokesman for Heritage Canada, acid rain causes an estimated $1 billion worth of damage to Canadian buildings annually. In Europe a 1978 study by the Swedish Government concluded that Sweden faced a $16.5 million annual loss in inland commercial fisheries due to acidified waters. Annual sport fishing and tourism losses were estimated at a further $50 million.

No comparable comprehensive data are presently available for Saskatchewan or for the broader study area of western Canada, although some initial attempts are being made. For example, preliminary findings indicate that there are 150 outfitters in northern Saskatchewan associated with 285 fishing lodges. The outfitters own buildings and other equipment associated with recreational fishing which is worth approximately $24 million. In 1980 they employed 600 people who earned $2.2 million. In 1975 more than 62,000 anglers expended in the neighbourhood of $8—$10 million in northern Saskatchewan. The commercial fishing industry in northern Saskatchewan utilizes buildings, boats, motors, nets, and vehicles worth about $15.1 million. It also employs 1,600—1,800 people who earned $3.5 million in 1980.

These preliminary findings at least provide some measure of the contribution of the industries harvesting the fisheries

resource or providing services to anglers. They do not provide a direct or primary measure of the resource itself, nor do they provide more than some general indications as to the time frame over which economic damage due to acid rain may possibly occur and the extent of that damage. Also, fisheries represents just one of the north's resource sectors and the potential impacts on forestry, tourism, and so on do not yet appear to have been analyzed in any detail.

It is to be hoped that these kinds of analyses can be undertaken in short order. It would seem that acid rain represents an environmental issue which would not be beyond the scope of a modified cost-benefit analysis; that is, an analysis which calculates the economic **benefits** of pollution control along with the more familiar and conventional costs of pollution abatement equipment, potential job losses, and so on. As much data as possible must be on hand before any tradeoffs are made. As is the case with most environmental issues, the choice on the question of acid rain is simply between paying now or paying later.

Warman Refinery

In October 1979 an Environmental Assessment Panel was established by the Federal Environmental Assessment Review Office to review a proposal by Eldorado Nuclear Ltd. for a $100 million uranium refinery near the town of Warman, 23 km from Saskatoon. The proposed refinery would process yellowcake from Saskatchewan mines into uranium hexafluoride (UF_6). The end product would be exported for enrichment and eventual use in foreign reactors.

The Panel held twelve days of hearings over the period January 8-24, 1980 in Martensville (near Warman) and Saskatoon. During this time span 336 people appeared before the Panel and a further 201 written presentations were submitted.

The Panel's report was completed in July 1980 and made public in August. The Panel concluded that it could not endorse the Eldorado proposal in its present form since there was not sufficient information available to assess the refinery's impact on the social environment. Although it was concluded that the impact on the physical environment would be minimal, the Panel recommended consideration of three options before a decision is made about the refinery site: 1) that more information be provided on the social impact in the Warman project area and further public review conducted; 2) that an additional one or more Saskatchewan sites be subjected to public review of the environmental and social impacts; 3) some combination of the first two; i.e. further review both of Warman and other sites.

Council was not a formal participant in the hearings, but did monitor the proceedings and subsequently forward an assessment of the hearings to the Minister in March 1980.

The arguments for and against the refinery presented at the hearings are by now familiar. Proponents based their case on the projected economic benefits to the community, the need for secondary industry in Saskatchewan, and the need for economic development in the north. Opponents questioned the need for the project in terms of long term demand for the product, criticized the impact assessment on both environmental and social grounds, suggested that other forms of secondary industry would be more appropriate for Warman and for northern Saskatchewan, and reintroduced the question of whether or not the uranium industry was a morally justifiable form of economic development.

Irrespective of the decision on Warman, it seems clear that the debate surrounding Saskatchewan's uranium industry will continue. Top priority should therefore be given to improving the manner in which the debate is conducted; i.e. the public participation process for environmental decision

making. In this regard the Warman hearings left much to be desired.

With the possible exception of the Grasslands Park Hearings in 1976 no previous public inquiry generated as much raw emotion and intensity as was in evidence at the Warman hearings. Feelings ran high on both sides, and the end result was that the Warman hearings dealt more with impassioned ideological exchanges than an objective assessment of the proposed project. The hearings must be considered a disappointment in this respect. Irrespective of the quality of the presentations made, the majority of these submissions addressed issues which were outside the terms of reference specified for the Assessment Panel.

Part of the problem may be traced to the hearings format utilized by the Federal Environmental Assessment and Review Office (FEARO). Standard FEARO procedure is to allow for nine days of hearings, and even with the addition of three more days for the Warman proposal insufficient time was a recurring problem. Although the Panel was forewarned of the high level of interest in the hearings they were nevertheless unprepared for the scheduling problems this created. The degree of financial assistance made available to participants and the lack of adequate procedures for cross-examination were also criticized. More generally, the overall adequacy and appropriateness of the FEARO process for assessing and gauging public opinion of the Warman proposal was also questioned.

In fairness to FEARO, it is clear in retrospect that the Assessment Panel did encounter something of an unexpected hornet's nest. The highly emotional nature of many of the presentations could not have been anticipated. The somewhat questionable conduct of some of the otherwise well intentioned participants must also have been unexpected. Lastly, the Panel spent the better part of the hearings listening to submissions on the broader ethical and global aspects of

the nuclear industry but had no mandate to address these issues.

In its assessment of the hearings Council attempted to identify some general tentative guidelines for the conduct of more productive and expeditious hearings in the future. First and foremost Council emphasized that the objectives for individual public hearings should be clearly specified well in advance. Public participation is not always synonymous with public decision making. In some cases (e.g. Cluff Lake Board of Inquiry, Churchill River Board of Inquiry) boards are specifically charged with recommending whether or not particular projects should proceed. In other cases boards or panels are given mandates simply to receive public commentary and assess a particular project on its technical merits. Council suggested that consideration be given to allowing input from interest groups to the actual formulation of terms of reference for future boards of inquiry; that is, that the public be given an opportunity to influence the objectives set for hearings boards rather than simply responding to those specified by government. However, once the objectives have been specified it should be made clear that these represent explicit parameters for discussion from which there will be little or no deviation. The intent of the suggestion is not to advocate heavy-handed inflexible boards, but rather simply to have boards make clear to all participants what specifically they may expect to influence and realistically hope to accomplish through a given hearings process.

Council also suggested that there should be specified rules of procedure for formal hearings to which participants must adhere, more exacting criteria for registration, and procedures which allow for mutual cross-examination of the proponent and participants. In addition more attention should be given to the guidelines for preparation of impact assessments so that the deficiencies in sociological data encountered by the Warman Assessment Panel do not reoccur.

On the basis of past experience the most productive hearings appear to have been those using a two-stage format: formal hearings, wherein "experts" interact with "experts" and rules of procedure and cross-examination enter into play, and informal hearings (e.g. in rural and northern communities) where the format is less rigid and the objective is simply to hear and weigh public opinion. The Churchill River Board of Inquiry, Cluff Lake Board of Inquiry, and the Hall Commission (1976) all utilized this format with good results. The FEARO process attempts to combine both stages in one short series of meetings. In the case of Warman the adequacy of this process was questioned by virtually all participants, both pro and con. Council therefore suggested that consideration be given to examining alternate models for public participation with the overall objective of somehow consolidating the positive aspects of the FEARO process, boards of inquiry, hearings boards, science courts, and royal commissions into one workable set of guidelines for public participation.

This represents no small task. However, there are two general principles which may provide some guidance. First, the most credible and reliable basis for decision making remains the process of rational empirical investigation and assessment. Although some may take longer than others, over the long term empirical contradictions can eventually be synthesized and resolved on some mutual common ground. A strictly subjective inferential debate does not harbour the same potential for consensus. Technical or "expert" commentary should not be forsaken or discredited simply because the scientific community does not have a perfect batting average. Second, there is no substitute for the kind of knowledge and insight which comes from living in and knowing a particular locality; understanding its physical characteristics and peculiarities and the needs and wishes of the populace. There is no impact assessment, no matter how thoroughly researched, which cannot be improved by this

kind of scrutiny at the local layman level. These two general principles should complement each other, with local insights redirecting the technical assessment where appropriate and helping to identify an interface between public opinion and development objectives.

No such common ground was ever really established at Warman and the hearings process suffered as a result. On the one hand, the Panel was not prepared for the level and kind of local concern expressed. On the other, many participants based their arguments exclusively on moral grounds, arguments which however well intentioned and sincere can neither be proven nor disproven, only embraced or rejected. Whether or not one was pleased with the Panel's eventual decision, little satisfaction could be taken from the manner in which the decision was reached.

Key Lake Board of Inquiry

The Key Lake Board of Inquiry was established in December 1979 to review a proposal for a uranium mining and milling operation at Key Lake in northern Saskatchewan. The Board was charged with determining whether the proposal contained adequate safeguards from the standpoint of environmental quality and occupational health, and also if the proposed safeguards met the requirements of Canadian and Saskatchewan law in this regard. The terms of reference did not explicitly state that the Board was to recommend whether or not the project should proceed, but rather required the Board to recommend "the conditions under which the project should proceed." The Board was not asked to review the broader implications of uranium development.

Hearings commenced in February 1980 and concluded in early October. It is expected that the Board's report will be completed early in the new year.

Council monitored the proceedings and met with Board staff on two occasions to discuss the progress of the Inquiry.

Council also forwarded a submission to a preliminary hearing of the Board in February 1980, a hearing held to receive comment on procedures for public participation for the remainder of the hearings.

In its submission Council summarized its principal conclusions with respect to public participation arising from the Warman experience (the need for specification of hearing objectives, rules of procedure, allowance for cross-examination, consideration of alternate forms of public participation). In retrospect the end result of this exercise must be viewed with mixed emotions. The manner in which the Key Lake hearings were conducted did not deviate significantly from the general procedural objectives suggested by Council. However, like Warman, the Key Lake hearings must be considered a disappointment from a public involvement standpoint.

Credibility was a major problem from the outset due to the relatively advanced stage of the project prior to establishment of the Board. Also, many prospective participants questioned the terms of reference given the Board; more specifically, the apparent lack of a clear mandate to recommend that the project not proceed. For these reasons the hearings were boycotted by the vast majority of environmental interest groups with past records of participation in such forums.

The result was that, as of August 1980, there were only nine full time participants in the Key Lake Board of Inquiry, a figure which included the Government of Saskatchewan. Also, although the Inquiry was based in La Ronge (vs Regina or Saskatoon) and hearings held throughout the north, the degree of input from northerners did not meet expectations.

The absence of the environmental groups lent a somewhat different flavour to the inquiry proceedings. The majority of issues raised in the north were socio-economic as opposed to

environmental. Concerns expressed by northerners included land claims, unemployment, hiring and training practices, the need for banking and other financial facilities in the north, and the job creation potential of the uranium industry vs other forms of development for northern Saskatchewan. The present and projected demographic trends in the north reinforce these concerns.

Perhaps the most significant social issue to emerge during the course of the hearings was the need for more attention to long range planning in the Northern Administration District. At present there are roughly thirty-five different federal and provincial agencies with a hand in northern administration, but their activities tend to be uncoordinated. It does not appear that any single agency or agencies has been assigned or taken on the task of assembling the long range development projections for the north and analyzing what these may portend.

With respect to uranium alone, in addition to the Key Lake proposal there is the Rabbit Lake (Collins Bay) expansion, Midwest (McMahon) Lake, McClean Lake, and possibly a proposal at Dawn Lake to consider within the near and medium term future. In other words there are five potential multi-million dollar projects pending within the near and medium term. Also, over the past year there were reports that exploratory drilling had produced promising results at Eagle Point, Holgar Lake, and Taylor Bay. This represents a cursory synopsis of just one of the north's resource sectors. The cumulative long term socio-economic and environmental implications clearly need to be assessed. If the Key Lake Board can even point some general directions in this regard it will have made a major contribution.

It is hoped that the Board may also be able to point some general directions with respect to future inquiry processes. Some of the problem areas which emerged from the Key Lake proceedings included adequacy of baseline data, adequacy of

information/education programs, the need for consolidation of logistical and procedural data from previous boards, funding of interest groups, and preparation and distribution of transcripts in terms of accuracy and speed.

Information/education programs warrant top priority in northern Saskatchewan (and probably also in the south). A disturbingly large amount of misinformation concerning uranium development surfaced during the course of the Key Lake hearings, not in terms of deliberate distortions but rather simple fundamental misunderstandings of rudimentary data. It seems safe to conclude that one of the Board's more noteworthy accomplishments will be the degree of public education achieved in the north. By holding all of the hearings in northern communities the Board made an honest attempt at introducing the issues to the people who will be most directly affected by the project. At least a beginning has been made in this regard.

In a sense the Key Lake hearings stand in direct contrast to Warman. It seems reasonable to expect that the Key Lake proposal will receive a thorough technical review. The number and calibre of witnesses to appear before the Board was impressive and the dialogue cannot help but improve the final report. This exchange of data and opinion was, for the most part, relatively low key and stands in direct contrast to the super-charged atmosphere at Warman. However, the Key Lake proceedings lacked the jam-packed halls of Martensville and Saskatoon and the expression of opinions by the Saskatchewan public on the project proposal. In this instance the silence was indicative of significant disillusionment in some quarters rather than consent. Somewhere in between these studies in contrast lies the elusive middle ground. The sooner it can be staked out the better for all concerned.

Churchill River Heritage Waterway

In May 1980 Council was provided with the Executive Summary of the environmental impact assessment for a proposed airstrip and all-weather access road near the community of Sandy Bay in northern Saskatchewan. Council forwarded a review to the Environmental Assessment Secretariat in June 1980.

Assessed strictly on its own merits, the proposed project is not particularly contentious so long as the recommended mitigative measures are adhered to. Council's concern was with the location of the project; more specifically, the fact that it represents yet another small scale project within the proposed boundaries of the Churchill River Heritage Waterway.

The Executive Summary notes that "a negative impact (of the project) is the impairment of the recreational potential of the Churchill River." The Executive Summary goes on to state that the Churchill's recreational potential is already to some extent impaired and that, given the small scale of the project, any impairment is not expected to be major. This may well be valid reasoning if the objective is simply to assess the Sandy Bay proposal in relative isolation. However, Council's more general concern is with the need for preservation of wilderness areas in northern Saskatchewan, in this case the Churchill River.

In 1978 the Churchill River Board of Inquiry recommended that "the Churchill-Sturgeon Weir-Clearwater River systems in Saskatchewan be preserved as a heritage for present and future generations" and that the provincial government "take steps to establish a 'Churchill Heritage Waterway' to encompass the Churchill, Sturgeon-Weir, and Clearwater systems in a protected corridor not less than 20 miles across along the Saskatchewan extent of these systems." The Board also outlined some suggested means through which this end could be achieved.

Although this particular Board recommendation was not endorsed outright, at the time the government did indicate an intention to seek more input from local residents about the proposal. There does not appear to have been any significant tangible progress in this regard in the two years since release of the Board's Report. There has, however, been a disturbing trickle of development proposals which are incompatible with the concept of a Heritage Waterway.

The Sandy Bay airstrip and access road is just one example. The Executive Summary EIA notes that the proposed airstrip could be expanded to a higher Transport Canada standard. A water-based docking facility is another possibility. Mineral exploration was approved in 1979 further up the Churchill River at Sokatisawin Lake. The Key Lake road now crosses the Churchill River at Snake Rapids north of Pinehouse. The development of cottage subdivisions on reserve land at Otter Lake on the Churchill is a possibility. Although no formal proposals are in evidence, there is a potentially commercial limestone deposit at the north end of Knee Lake on the Churchill within about a dozen miles of the Key Lake road. It is not inconceivable that this would be considered for development to help meet the demands of the uranium industry in the north.

Lastly, it is distinctly possible and perhaps probable that the Wintego hydro proposal may be resurrected at some point in the future. Recent SPC forecasts show that total generated electricity may more than double within the next twenty years (from 34.56 Joules x 10^{15} in 1980 to 78.06 Joules x 10^{15} in the year 2000). Installed generating capacity is expected to increase from 2,059 megawatts in 1980 to 4,700 MW by the year 2000. A more than fourfold increase in hydro-generated electricity is projected over the same time span (from 6.77 J x 10^{15} in 1980 to 29.20 J x 10^{15} by the year 2000). This rate of projected growth may well make Wintego more and more appealing to electrical energy planners over the long term.

Some of the foregoing is admittedly speculative. However, the fact remains that projects such as the one at Sandy Bay are proceeding and more appear to be in the offing. If this continues, in the not too distant future the relative lack of progress in implementing the recommendations of the Churchill River Board of Inquiry will no longer matter for the Heritage Waterway will have ceased to be a feasible option.

In making their original recommendation, the Churchill River Board of Inquiry emphasized the unique cultural, historic, and scenic qualities of the Churchill-Sturgeon-Weir-Clearwater River systems and their importance as a provincial heritage. An overwhelming majority of submissions to the Board were in favour of preserving the area. In other words, there is still firm ground upon which to pursue the preservation option. Although implementing the proposed Heritage Waterway will clearly be difficult and there may well be potential development opportunities lost in the process, it is Council's consensus that a far greater opportunity will have been lost if implementation is not pursued.

Department of Environment

Council is required by its terms of reference to review government policies and programs and report findings and recommendations to the Minister, and also to bring to the Minister's attention potential problem areas which may require government attention. Council's principal role is therefore to provide constructive criticism of departmental and government activities from an independent perspective. Put more simply, it means concentrating more upon the things that have gone wrong than right.

However, this should not preclude the occasional small bouquet. The end of this particular reporting year may be an appropriate time, not because environmental management in Saskatchewan is anywhere near perfection but rather

because it appears to be appreciably better than before and some significant tangible steps in the right direction have been taken. This is particularly apparent when the Department's present role is viewed with some historical perspective.

The discussions which preceded founding of the Department in 1972 centered on two main options. The first was that the new department take over all environment-oriented functions of the existing departments. Environmental management would be consolidated within one department, a department geared to legislative-based regulation and enforcement along American Environmental Protection Agency lines. The second option — the one chosen — was that the department be designed as essentially a co-ordinating agency with little emphasis on the regulatory function, an agency which would facilitate consideration of environmental concerns by other government departments. The selection of the co-ordinator model meant that the Department's method of operation was geared more to persuasion than regulation, with the Department arguing the case for the environment in forums such as the Inter-Agency Co-ordinating Committee and the Wetlands Committee as opposed to making the case for environment by way of its own legislation and regulations. This orientation also meant that Saskatchewan Environment maintained a relatively low profile and was consistently one of the smallest departments in terms of budget and staff. Also, environmental management tended to be somewhat fragmentary since a significant amount of regulatory authority remained formally vested in other departments.

During the reporting year the overall orientation of the Department began to change, with the emphasis beginning to shift from that of co-ordination to that of regulation and enforcement. Some of the more notable events of the past year included the passage of four major pieces of legislation:

the Environmental Assessment Act, Ecological Reserves Act, Drainage Control Act, and amendments to the Department of Environment Act to allow for introduction of Hazardous Spill Control Regulations. Also, in January 1980 uranium was exempted from the Pollution Prevention Regulations for the Mineral Industry (Department of Mineral Resources) and the regulatory responsibility transferred to the Department of Environment. Other positive events included a modest (in absolute dollar terms) budgetary increase for the 1979-80 fiscal year and a ban on the use of 2,4,5-T.

The present role and responsibilities of the Department have changed significantly since the Department's inception in 1972 and Council's in 1973, and the change has been for the better. However, it is not for a moment suggested that all of the battles have been won. Rather, it is Council's consensus that a sound **beginning** has been made, a reasonable foundation laid upon which to build.

As part of this building process, Council would like to see an expansion of the Department's research and analytical capacity as well as an overall increase in resources (fiscal and personnel) so that the Department can fulfill its growing responsibilities. Also, the consolidation of environment-oriented regulations should be pursued to its logical conclusion. For example, consideration should be given to transferring the administration of the Pollution Prevention Regulations for the Mineral Industry **in their entirety** from the Department of Mineral Resources to Saskatchewan Environment. This would seem the logical follow-up to the earlier transfer of those portions of the regulations applicable to the uranium industry. Similarly, it would seem appropriate to transfer complete provincial-level authority for regulation of agricultural chemicals (Pest Control Products Act) from Saskatchewan Agriculture to Saskatchewan Environment.

The objective underlying these suggestions is not to add another layer of bureaucracy or advocate throwing money at problems. The overall objective is simply to redistribute regulatory responsibilities within government so that the specific functions of a given department are consistent with its general mandate. The suggested changes would be in keeping with this general principle.

The most common objections to changes of this nature usually center around the question of cost, both in terms of increasing requirements for a particular agency and the more general costs of environmental regulation (e.g. redesigning existing and proposed projects to conform to more stringent regulations). Here two points need to be made. First, although Saskatchewan Environment received an increase for the 1979-80 fiscal year, its total budget remains very small in comparison to the other departments and the private sector whose activities Environment must oversee. Also, it should be noted that the suggested changes primarily involve **transfers** of regulatory responsibility within government, not additions to the existing level of government regulation. The second point to be made is that although there are costs associated with environmental regulation there are benefits as well. For example, the cost of implementing and administering the new Hazardous Spill Control Regulations should be weighed in comparison to the cost of the clean up of the PCB spill at Federal Pioneer Ltd. in Regina. The former clearly seems preferable if it may prevent the latter. It is therefore Council's consensus that the price tag for environmental regulation is as much an investment as an expense and will hopefully not impede further progress during the coming year.

General

In September 1979 Council met with officials from the Department of Mineral Resources (Policy, Planning, and Research Branch) to receive an update on provincial energy

policies and programs. The three premises presented as the basis for provincial energy planning are an improvement over past versions which did not look beyond continued development of non-renewable fossil fuels. First, non-renewable energy forms, upon which the province is so dependent, are finite and will eventually run out. Second, a transition will therefore have to be made, within an appropriate time frame, to renewable energy sources. Third, this transition can be made easier by prudent conservation practices. The problem which presents itself, however, is that present and projected energy programs do not seem totally consistent with the premises for planning (e.g. the projected doubling of net electrical generating capacity, the projected growth of the uranium industry). Put another way, the theory and the practice seem somewhat at odds. However, it is nevertheless encouraging to see increased attention being given to energy planning, and in particular to the renewables and conservation.

In November 1979 Council was provided with copies of the Draft Hazardous Spill Control Regulations for review and comment. Council forwarded a review in December, dealing primarily with questions of general interpretation. Council also suggested that provincial-level responsibility for regulation of intra-provincial transport be specified in the regulations, and that if possible a provision be added which would allow for maintenance of an up-to-date inventory.

In October 1979 Council was provided with the Executive Summary of the environmental impact assessment for a proposed small hydro plant on the Rapid River. This proposal was disturbing in two respects. First, the proposed project lay within the boundaries of Lac La Ronge Provincial Park, something which seemed indicative of the incompatibility of the multi-use concept with the stated objectives for the provincial parks system. A second related concern was the lack of a formal government policy on proposed develop-

ments within provincial parks and the apparent fragmentary nature of provincial parks policy formulation.

In February 1980 Council brought to the Minister's attention the apparent lack of progress toward implementation of the proposed Grasslands National Park in southwestern Saskatchewan. Despite years of study, formal hearings, and extensive interaction with the public the park still is not a reality. Although federal and provincial officials remain publicly committed to the proposal, it seems to Council that the continued delays in implementation undermine the credibility of the public participation process and provide fertile ground for speculation as to whether the park will ever be established.

In January 1980 Council commissioned a report with the primary objective of determining the status and adequacy of existing provincial parks policy as it pertains to northern Saskatchewan. Specific related objectives of the study included: a) identifying and evaluating areas of northern Saskatchewan with potential for park development; b) determining which areas of northern Saskatchewan are presently protected and what form this protection takes; c) evaluating the effect of a rapid expansion in resource development on the areas with park potential; d) reviewing Saskatchewan's Park and Wilderness Classification Policy and related policy and legislation in terms of their adequacy for northern Saskatchewan. It is expected that the report will be available for distribution in the 1981-82 fiscal year.

In March 1980 Council was provided with the Executive Summary of the environmental impact assessment done for Prince Albert Pulpwood Co. on their proposed haul roads and a permanent camp in the Wappawekka Lake area, southeast of La Ronge. Council forwarded a short review in April, noting that the roads would provide access to an ecologically sensitive area and suggesting that there should therefore be restrictions on public use of the roads. Council

also noted that the selection of the proposed camp site seemed based more on the recreational benefits of a lakeshore site than any practical logistical necessity and therefore suggested that the camp be located near the road instead of on Wappawekka Lake.

Council was provided with copies of the draft Environmental Assessment Act in April 1980 and met on two occasions with a member of the Law Faculty, University of Saskatchewan, to discuss the merits and shortcomings of the draft Act. Although there are some soft spots in the Act, particularly with respect to procedures for public review, the overall consensus was that this can be a workable piece of legislation. The Act along with the existing Policy and Guidelines (1976) has sufficient potential to be an effective environmental assessment mechanism. As with any piece of legislation, the true measure of the effectiveness of the Act will be how it is implemented and enforced.

Citizen Concerns

Ecological Reserves

In August 1979 concerns were relayed to Council with respect to development underway within one of the areas designated as a candidate site for the provincial ecological reserves system. The case cited was coal mining in progress in the Pinto-Souris Valley area, an area which had earlier been identified as a candidate site. An update was requested on the status of the proposed Ecological Reserves Act in lieu of the Pinto-Souris case and possibly other encroachments on potential candidate sites.

The proposal for a system of ecological reserves in Saskatchewan has its origins in the much larger International Biological Program ("The Biological Basis of Productivity and Human Welfare") which was launched in 1965 and ran

through to 1974. The overall purpose of the Program was to further the understanding of ecological processes by setting aside, for continued observation over an indefinite period, a global range of typical ecosystems which would be kept relatively free from human disturbance. Fifty-eight countries, including Canada, participated in the Program.

In Saskatchewan a six member consulting panel identified and evaluated 101 candidate IBP sites over the period 1969-73. Of these, thirty-six are in the Northern Administration District and the remainder are in southern Saskatchewan. In May 1980 the Ecological Reserves Act (Saskatchewan Environment) was passed by the Legislature. The Act enables the Department to set aside and preserve areas which are unique or representative of the Saskatchewan landscape, in keeping with the overall objective of the international program. As of May 1980, twelve of the IBP sites were under active consideration by the Department for designation as ecological reserves, three in the Northern Administration District and the remainder in the south.

Council is extremely pleased to see tangible progress towards establishment of an ecological reserves system for Saskatchewan. However, there appear to be two potential problem areas which should be flagged.

First, Saskatchewan's Ecological Reserves Act is applicable only to provincial crown land. More specifically, the Act enables the Lieutenant Governor in Council to designate any provincial crown land as an ecological reserve. Given this provision it appears that privately owned land and federal crown land cannot be similarly designated so that a portion of the IBP candidate sites are therefore effectively removed from consideration.

Of the 101 IBP candidate sites only 53 are completely on provincial crown land. Eighteen candidate sites are completely on privately owned land, 2 completely on federal

crown land, and 4 on a combination of privately owned and federal crown land. The remaining 24 IBP candidate sites are located on a mixture of privately owned and crown (federal and/or provincial) land. It would therefore appear that a minimum of 24 and perhaps as many as 48 of the IBP candidate sites are not within the scope of Saskatchewan's Ecological Reserves Act.

A second more general problem area is the competing land use demands on some of the IBP sites and the consequent need for prompt implementation if the provincial ecological reserves system is to be adequately representative. The Pinto-Souris Valley area provides one example of resource development pressure on an IBP candidate site. Similarly, of the three sites under active consideration in northern Saskatchewan one (Lefty's Falls) has been evaluated by SPC as a potential hydro site and another (Wappawekka Hills) may be vulnerable as a result of the haul roads for the Prince Albert Pulpwood Co. which are pending in the vicinity.

As is so often the case, a preservation initiative must again compete with economic development for use of the same resource. Perhaps the point which needs to be made is that preservation, in this case an ecological reserves system, also represents a form of development and one deserving of broad based support.

It was never the intent of the International Biological Program to isolate vast tracts of the globe from all forms of human contact forever, nor is this the intent of the proposed system for Saskatchewan. On the contrary, an ecological reserves system serves many practical and useful purposes both at the local (Saskatchewan) and international level. It provides a whole range of outdoor laboratories for the study of natural processes in relatively undisturbed ecosystems. It provides a valuable benchmark against which man's impacts on the environment can be measured. It provides an educational forum, serving as an outdoor class-

room open to students of all ages. It serves as a living museum, providing representative examples of ecosystems which closely approximate undisturbed conditions. Lastly, it provides some invaluable biological insurance, maintaining the diversity in natural ecosystems and preserving rare or endangered plants and animals. An ecological reserves system provides a form of husbandry for what is perhaps the most valuable of all resources — the gene pool.

These are tangible benefits in which everyone has a share, not abstract privileges for a select few. However, to meet these objectives an ecological reserves system must encompass a sufficient land area to include a range of both typical and unique Saskatchewan ecosystems; i.e. it must be genuinely representative in biophysical terms. A more modest approach will produce more modest results in terms of the degree to which the eventual system will meet the original IBP objectives. Council therefore supports the efforts of the Department as it moves toward implementation of an ecological reserves system for Saskatchewan in the hope that the momentum of the past year will in due course provide an ecologically comprehensive system.

Response to 1978-79 Annual Report

Council's Annual Report is routinely distributed to a wide variety of provincial organizations, interest groups, and individuals. Comments received in response to the Annual Report are always encouraging and instructive. Last year was no exception.

Some of the concerns raised included the apparent lack of progress towards implementation of the Grasslands National Park, the need for an ecological reserves system in Saskatchewan, the need to move away from a consumer-oriented society towards the conserver society model, toxic chemicals, air and water quality (in particular the threat posed by acid rain), and the direction of energy policies and

programs, more specifically the continued dominance of non-renewable fossil fuels. The uranium industry was frequently cited as a cause of concern. The impact of agricultural chemicals and the need to seek alternatives to chemical-intensive agricultural production was mentioned more than any other issue. It was emphasized to Council that the guiding premise for agricultural production should be long term sustainability, not short term profit.

The Annual Report was criticized as being too general and imprecise, and Council was mildly chastised for being too cautious. Council was encouraged to take a more critical stance on the issues and attempt to do more in terms of providing the public with relevant information on the major current issues. Several observers politely noted that Council's resources (in budget and manpower terms) are modest and effectively preclude any major information / education role. However, it was emphasized that **some** agency needs to fill this role. Similarly, it was stressed that Council (or some other agency) should do a more thorough job of monitoring public concerns on environmental issues, simply cataloging them in an annual report if nothing else. It was also suggested that Council's Annual Report (or some other annual document) should contain an update on the progress, or lack of same, in implementing and enforcing recommendations from provincial boards of inquiry (Churchill River Board of Inquiry, Poplar River — Nipawin Board of Inquiry, Cluff Lake Board of Inquiry, etc.).

Concerns were also expressed with regard to the environmental impact assessment process. There were some general misgivings about the overall effectiveness of this process and whether or not it was still worthwhile expending the necessary effort to participate. There was also a more pointed concern raised about the structure or format for the EIA process; more specifically, the lack of a formal advocate for the environment during the public review phase. It was

pointed out to Council that during public review of a given project proposal the proponent speaks in favour while the role of Saskatchewan Environment is by design essentially neutral, that of judge or arbiter. Public input may support or oppose a proposal for a wide variety of reasons. What is absent from this format is a full-time formal advocate for the environment at public meetings, hearings, and so on; i.e. someone to speak for the environment in the same way that the proponent speaks for the project proposal. It was emphasized to Council that this was a void which needed to be filled if the EIA process was to function effectively.

A final problem area flagged for Council's attention was the need for greatly increased support to environmental research in Saskatchewan. It was suggested that the existing research base for environmental studies in Saskatchewan was relatively limited in terms of funding and personnel and that both the Department and the province would benefit from a larger base of active expertise. These are sentiments with which Council can concur. However, there remains the familiar difficulty of convincing budget officers of the tangible merits of pure and applied research when the payback periods may be longer and the results less visible than those of more traditional operational expenditures.

General

A number of individuals contacted Council requesting information and assistance on a variety of problems.

Council was advised of pollution problems due to uranium exploration activity in northern Saskatchewan. The example cited was at Dubyna Lake where fish samples apparently indicate above background radiation levels. According to the impact assessment, this was probably due to the exploration program. It is becoming more and more apparent that the exploration phase of mining is not as environmentally benign as was once thought. In lieu of the continued brisk

pace of exploration in northern Saskatchewan, development of an appropriate regulatory framework deserves a high priority.

On a number of occasions concerns were relayed to Council expressing extreme dissatisfaction with the terms of reference assigned to the Key Lake Board of Inquiry. Most people felt that if a board of inquiry was to have any credibility it must have a clear mandate to recommend that the project under consideration not proceed.

Council was notified of leased land along the North Saskatchewan River being cleared, broken, and seeded at the expense of the wildlife habitat in the area. Council relayed the concern to the Department where it was subsequently referred to the Department of Tourism and Renewable Resources for further investigation. This particular case appears to be representative of a much broader provincial problem: the clearing and breaking of marginal land for agricultural use and consequent loss of valuable wildlife habitat. The extent of the problem is not clear; i.e. there does not appear to be concise data on how much habitat has been lost or is in jeopardy. Preparation of this type of inventory would seem a logical first step. The long term economics of clearing and breaking this type of land is clearly questionable, and this would also seem to warrant more investigation.

Council was advised that it appeared not all spills of hazardous substances on northern Saskatchewan roads were being reported. Council brought this to the Minister's attention, emphasizing that the formulation of regulations is only one half of the problem solving equation. Sufficient resources must also be made available for enforcement purposes if regulations are to be effective.

Council received an inquiry with respect to the use of asbestos insulation in public buildings; more specifically, where the regulatory authority resided and what standards

were applicable in lieu of the potential health hazards. The role of Saskatchewan Environment is primarily consultative. The principal regulatory body is the Department of Labour (Occupational Health and Safety Division) and the guidelines set for the workplace are also applicable to public buildings. The guidelines for allowable concentrations are re-evaluated on an ongoing basis. One aspect perhaps warranting further consideration is whether the standard for a public facility should be identical to that for the workplace. As a general rule, the allowable exposure to a hazardous substance for the public at large is less than that specified for workers on the grounds that the public is more susceptible to adverse effects.

Liaison Activities

Fifth Joint Meeting of Federal-Provincial EACs

The fifth joint meeting was held at St. Andrews, New Brunswick in June 1980. Doug Keil and Evelyn Potter along with Department Liaison Ken Fawcett represented Council at the meeting. Representatives from seven provinces, the Northwest Territories, and the Canadian EAC were in attendance.

The meeting was structured around three major themes: land use, shore zone management, and the long range transport of air pollutants. The subject of ecological reserves was later added to the agenda and dealt with in a special session. A series of resolutions on these topics was formulated during workshop sessions, discussed in plenary session, and later transmitted for consideration by individual Councils. The resolutions are not binding on the participating Councils, but rather provide some general directions for setting priorities in individual provincial jurisdictions.

There was general consensus at the meeting that Environment Canada should pursue the establishment of ecological

reserves on appropriate federal lands throughout Canada in as expeditious a manner as possible. There was also consensus that Environment Canada should establish a "National Ecological Reserves Co-ordinating Committee" which could serve as a clearing house for information on ecological reserves in Canada.

The session on long range transport of air pollutants produced general consensus that the federal government should work towards conclusion of a treaty with the United States to address the mutual aspects of the problem, and also that there was a clear need for expanded research efforts on atmospheric chemistry and the effects of airborne pollutants. For example, although progress has been made with respect to knowledge of the transmission and atmospheric chemistry of sulphur compounds, relatively little is known about the behaviour of nitrogen oxides or of other organic and inorganic compounds such as PCBs, dioxin, mercury, and so on. Another notable and disconcerting point was that, according to one of the keynote speakers, the impact of airborne sulphur compounds on human health will be even greater than the more widely publicized impacts on aquatic ecosystems.

The pending rapid expansion in off-shore oil and gas exploration and development was emphasized to underscore the need for long term planning of shore zone management. The need to identify sensitive ecological areas within shore zones and expand research efforts were among the priorities agreed to.

There was not sufficient time for participants to adequately discuss and reach any consensus on the proposed land use resolutions. However, one of the more interesting points to emerge from this session was a relatively widespread dissatisfaction with the Canada Land Inventory, particularly in the Maritime provinces. There seemed to be general consensus that the Inventory should be reviewed and updated.

Due to the importance of the subject it was suggested that land use be included as an agenda item for the next joint meeting, to be hosted by Alberta in June 1981.

General

In August 1979 Gerry Macdonald attended the Fourth Annual Meeting of the Canadian Land Reclamation Association on Council's behalf. The meeting provided a forum for exchanging state-of-the-art information on reclamation, with particular attention to the problems of reclamation in a plains environment. In October 1979 Council was invited to send a representative to the annual convention of the Northern Saskatchewan Outfitters Association. Roy Myke attended on Council's behalf. Environmental concerns raised at the convention included the proposed Rapid River hydro plant, spills of hazardous substances in transit, the haphazard abandonment of empty fuel drums, and the depletion of fish stocks in northern Saskatchewan.

In October 1979 Russ Simpson attended the Fort San Conference on Water, Chemicals, and Your Farm on Council's behalf. Priority problem areas identified at the conference included the need for returnable chemical containers, the need for increased resources for water quality testing and monitoring, and the need for a significant expansion of public information / education programs on the subject of agricultural chemicals. Ted Hammer, Council's representative on the Advisory Committee on Control of Pollution by Livestock, attended a meeting of the committee held in October. It was noted at the meeting that the Qu'Appelle Basin Agreement will expire in 1984, and it apparently is not clear what will transpire beyond that point in terms of maintaining a regulatory framework for livestock pollution.

In March 1980 Council was invited to send a representative to the Second Seminar on Environmental Implications of Northern Development at the Banff Centre, Alberta. Ted

Hammer attended on Council's behalf. One third of Canada's land area is characterized by continuous permafrost. Canada has half of the world's tundra, referred to by one of the speakers as the "Arctic Grasslands" as it is in some respects comparable to short grass prairie. Arctic ecosystems seem especially vulnerable to pollution due to the relative simplicity of the food chains and the slow growth and regenerative rates. This in turn means that an extra degree of caution should be exercised in considering development of resources in the north, a degree of caution which is not always in evidence.

Council continued its representation on the Land Use Policy Development Public Advisory Committee and the Ecologics and Land Resources Co-ordinating Group. Council also maintained its formal liaison with the Saskatoon Environmental Advisory Council and established liaison with the Saskatchewan Outdoor and Environmental Education Association.

Copies of Council's 1978-79 Annual Report as well as the Acid Rain Report were distributed to a wide variety of provincial organizations, interest groups, and individuals. A limited number of copies are still available for distribution through the Council office in Regina. Write to:

Province of Saskatchewan
Environmental Advisory Council
1055 Park Street
Regina, Saskatchewan
S4N 5H4

This report was written and produced by the Saskatchewan Environmental Advisory Council.

1980-81 Members

CHAIRMAN

Ole Nielsen
Western College of Veterinary Medicine
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 0W0
Phone: 343-2634

VICE-CHAIRMAN

Clarence Hookenson
Box 117
Kisbey
S0C 1L0

Pat Atkinson
835 Main Street
Saskatoon
S7H 0K2

John Comer
Box 876
Carrot River
S0E 0L0

Ted Hammer
31 Simpson Crescent
Saskatoon
S7H 3C5

Terry Harley
2603 Jarvis Drive
Saskatoon
S7J 2V2

Gerry Macdonald
1900 York Street
Regina
S4T 4R4

Roy Myke
Box 41
La Ronge
S0J 1L0

Diane Secoy
2736 Hill Avenue
Regina
S4S 0V4

Garry Shury
221 Durham Drive
Regina
S4S 4Z4

Russ Simpson
Box 130
Tompkins
S0N 2S0

Jim Tooke
Box 277
Dalmeny
S0K 1E0

EXECUTIVE ASSISTANT

Roy Schneider
1055 Park Street
Regina, Saskatchewan
S4N 5H4
Phone: 522-1284

DEPARTMENT LIAISON

Ken Fawcett
Department of Environment
5th Floor
1855 Victoria Avenue
Regina, Saskatchewan
S4P 3V5
Phone: 565-6140